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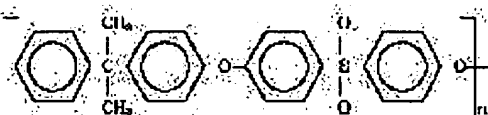
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## (54) ELECTROLYTE FILM FOR FUEL CELL AND MANUFACTURE THEREOF

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide an electrolyte film with higher ion exchange capacity than Nafion and high mechanical strength in spite of higher ion exchange capacity than sulfonated polysulfone, and provide the manufacturing method thereof.

**SOLUTION:** An aromatic ring of polysulfone having a repeating unit represented by the formula is sulfonated to introduce a sulfonic acid group into the aromatic ring, and a sulfonated polysulfone solution having an ion exchange capacity from more than 1.6 milliequivalent/g resin to 3.2 milliequivalent/g resin is obtained as a film forming solution, and the sulfonated polysulfone solution obtained is applied to a substrate to form a coating film, then the coating film is heated at 40-80°C for 12 hours or longer to obtain an electrolyte film. The electrolyte film for a fuel cell has high ion exchange capacity mentioned above, and high mechanical strength of a fitting load pressure of 80kgf/cm<sup>2</sup> or higher, and high molding capability.



## LEGAL STATUS

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